

## CYCLADIDÆ OF THE SOUTHERN STATES.

BY V. STERKI.

The year 1904 has brought us many good things in the line of Cycladidæ, especially from the South, from Indiana and from Canada. Our knowledge of these small bivalves from the Gulf States has been very limited. Mr. H. E. Sargent had done some collecting in North Alabama, and Mr. Frierson in North Louisiana, and a few lots had been seen from other states. The collecting of Mr. Smith in Georgia and Alabama, mainly along the Coosa river, and of Mr. A. A. Hinkley in Alabama and Mississippi, have opened that territory known as particularly rich in Strepomatidæ and Unionidæ, and added considerably in regard to systematics as well as geographical distribution. The specimens collected by Mr. Smith were kindly sent for examination by Mr. Bryant Walker, those of Mr. Hinkley partly by himself and partly by Mr. Walker. The following list and notes may be of interest to students of a much neglected yet integral part of our mollusk fauna :

*Pisidium virginicum* Gm. From Georgia, Alabama and Mississippi, common and rather variable. The prevalent form along the Coosa river is decidedly oblique and rather angular in outlines; it may represent a variety.

*Pis. compressum* Pr. Common and decidedly variable, making a considerable addition to the already wide range of variation of this species, and some forms seem to represent real varieties.

*Pis. kirklandi* Sterki. Shoal creek near Florence, Town creek at Montevallo, Ala., full grown and young specimens; seen from the South for the first time. There is a small but distinct roundish, somewhat raised, granular area in the center of each beak, a characteristic feature of the species, not noted in the description (THE NAUTILUS, xiii, p. 11, 1899).

*Pis. cruciatum* Sterki. Shoal creek, Florence, Ala., collected by Mr. Hinkley. This minute *Pisidium*, distinguished by the unique formation of its hinge and the shape of the ridges on the beaks, had also been known only from Ohio, Michigan and Illinois (also fossil).

*Pis. fallax* Sterki. Two badly eroded specimens from the Town creek, Montevallo, Ala. The species is widely distributed and variable, and specimens of it are generally more eroded than any others.

*Pis. limatum* Sterki. Various places in Alabama.

*Pis. peraltum* Sterki. Grenada, Miss., only one specimen, but good and characteristic, collected by Mr. Hinkley. Had been known from Virginia, Kentucky, Illinois and Iowa. A form from Michigan referred to it seems to be distinct.

*Pis. noveboracense* Pr. Specimens from Alabama and Mississippi were referred, somewhat doubtfully, to this widely distributed and very variable species. Some forms from various places of the three states represented partly by hundreds of specimens, are either varieties or distinct species, and still more materials are desirable.

*Pis. atlanticum* Sterki. Wetumpka, Ala.

*Pis. singleyi* Sterki. Tuscaloosa, Ala. (over 200 specimens) and Columbus, Miss. (Mr. Hinkley); Buxahatchee Creek, Calera, Ala. (Mr. Smith). Somewhat different from the Texas form, rather like those from Frierson, La. (collected by Mr. Frierson), but larger.

Several other *Pisidia* have been seen, represented by small numbers of specimens; with more materials on hand, they may prove distinct species or varieties.

*Sphaerium solidulum* Pr. Several places in Alabama and Georgia, variable. Good numbers, *e. g.*, from the Buxahatchee creek, near Calera, Ala., collected by Mr. Smith; one form closely resembles Ohio specimens regarded as typical, another, in the same lot, is rather different, the sulcation is much finer and the young are of somewhat different shape. The two forms are separable, one by one; whether the latter represent a variety or a distinct species will be ascertained with additional materials. From some places, the specimens were small and poor, yet seemed to be true.

*Sph. stamineum* Con. Several places in Alabama and Mississippi; over a hundred good specimens from the Town creek, Montevallo, Ala., "in weeds and mud," collected by Mr. Smith. A few specimens in the same lot were rather different, whether distinct, must be made out later.

*Sph. striatinum* Lam. Georgia, Alabama and Mississippi. Rather different forms from various places seemed to range under this very polymorphous species. Although many thousands of specimens of "*Sph. striatinum*" were seen from a wide territory, it has not yet been possible to define geographical varieties to any degree of satisfaction, nor to exclude with certainty such forms as may be considered distinct.

*Sph. fabale* Pr. Several places in Alabama, evidently common; scarcely different from the more northern form (Ohio, etc.).

*Sph. occidentale* Pr. Near the Coosa river, 300 good specimens, and a few from the Shoal creek, Ala. (low woods, Mr. Smith); Boligee, Ala. (Mr. Hinkley).

*Calyculina*\* *elevata* Hald. From various places in Alabama; Columbus, Miss.; also received from Frierson, La.

*Cal. transversa* Say. From a number of places in the three States, generally small and slight, while from Frierson, La., I have received specimens of large size.

*Cal. truncata* Linsl. Specimens from near Wetumpka, Ala., are rather resembling the *Cal.* from New York, Ohio, etc.

*Cal. securis* Pr. (?) A single specimen from Spring creek, Ebenezer Church, Ala., seems to range under that species.

A small, greenish to brownish *Calyculina* from Grenada, Miss., collected by Mr. Hinkley, may be a variety of *Cal. securis*; the same, although somewhat different, has been seen from Frierson, La.

Of *Eupera*, some specimens have been collected in Alabama, but were not examined. *Eupera* is known to inhabit all the Gulf States (except Mississippi?), and it is very desirable that more materials be brought up for systematic examination.

Although the specimens seen so far hardly justify speaking of lacking species, yet it may be noted that it was surprising not to see a trace of such widely distributed and common species as *Pisidium variabile* Pr. and *punctatum* Sterki; also none of *Sphærium simile* Say and *rhomboideum* Say and, as it seems, *Calyculina partumeia* Say.

---

#### SHELL COLLECTING ON THE MOSQUITO COAST OF NICARAGUA.—III.

---

BY W. H. FLUCK.

---

*Strombus pugilis nicaraguensis* var. nov.

The shell differs from the typical *pugilis*, especially in its smaller size, varying very little from 55 to 62 mm. The spire is regularly

---

\* Dr. E. von Martens thinks *Calyculina* Clessin should be replaced by *Musculium* Link.